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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,402	03/26/2005	Dean Burfoot	5522-00002	6739

26753 7590 11/02/2010
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EXAMINER

ORLANDO, AMBER ROSE

ART UNIT	PAPER NUMBER
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1774

MAIL DATE	DELIVERY MODE
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11/02/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/529,402	BURFOOT, DEAN	
	Examiner	Art Unit	
	AMBER ORLANDO	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-11,14-22 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-11,14-22 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to the correspondence filed 09/13/2010.

Claims 1 and 14 have been amended.

Claim 24 is new.

Claims 3, 12, 13 and 23 are cancelled.

Claims 1, 2, 4-11, 14-22 and 24 are rejected.

Claims 1, 2, 4-11, 14-22 and 24 have been examined and are pending.

The applicant appears to be attempting to invoke 35 U.S.C. 112 6th paragraph in claims 1, 12 and 14 using the phrase "means for" and being modified by functional language.

For claim 14, the applicant fails to invoke 35 U.S.C. 112 6th paragraph because the phrase "means for" is modified by sufficient structure for achieving the specified function (e.g. "by providing a substantially uniform flow of filtered air over the work surface in a continuously replenished rising layer")

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 2, 4-11, 14-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howorth US 4,531,956 in view of Marsh et al. US 3,629,999.

4. For claim 1, the Howorth reference discloses a sterile air trolley comprising a mobile casing having at least one air inlet in its lower region (figure 1 objects 11, 13 and 14) and a plurality of air outlets in its upper region (figure 1, object 22a, and b) and enclosing an impeller operative to move air in through the at least one inlet (column 1, lines 33-34), through a filter and out of the casing by way of the outlets, the upper region of the casing providing a substantially horizontal work surface (figure 1, objects 15, and column 2, lines 46-49), and means for giving rise to a continuously replenished rising layer of filtered air over the work surface and forming a robust blanket of sterile air over the work surface (figure 2 objects 22 a and b). The reference does not disclose an upstanding boundary wall extending around the perimeter whereby the work surface and boundary wall form a tray, the boundary wall being hollow and extending fully around the perimeter of the work surface, the means for giving rise to a substantially uniform and continuously replenished rising layer of filtered air over the work surface

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and for forming a blanket of sterile air over the work surface, such that the filtered air is emitted inwardly over the work surface from opposing straight, parallel side walls.

5. The Marsh et al. reference discloses an upstanding boundary wall extending around the perimeter whereby the work surface and boundary wall form a tray, the boundary wall being hollow and extending fully around the perimeter of the work surface, the means for giving rise to a substantially uniform and continuously replenished rising layer of filtered air over the work surface and for forming a blanket of sterile air over the work surface, such that the filtered air is emitted inwardly over the work surface (figure 1, objects 36 and 28 and column 2, lines 24-28, "create an air barrier over the well" shows the filter emitting air inwardly). The reference does not explicitly state the boundary wall being hollow. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the wall being hollow since the examiner takes Official Notice of the equivalence of the wall of Marsh (objects 36 and 28) and the applicants hollow wall for their use in the air outlet art and the selection of any of these known equivalents to provide an outlet for filtered air would be within the level of ordinary skill in the art. Merely changing the shape of the filter (from a circle, to the boundary wall comprising first an second pairs of opposing straight, parallel side walls) does not render patentability. The specification contains no disclosure of either the critical nature of this requirement or any unexpected results arising therefrom, and as such this requirement would be arbitrary and therefore obvious. Applicant must show that this requirement is critical. In re Woodruff, 16 USPQ 2d 1934.

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6. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include an upstanding boundary wall extending around the perimeter whereby the work surface and boundary wall form a tray, the boundary wall being hollow and extending fully around the perimeter of the work surface, the means for giving rise to a substantially uniform and continuously replenished rising layer of filtered air over the work surface and for forming a blanket of sterile air over the work surface, such that the filtered air is emitted inwardly over the work surface from opposing straight, parallel side walls (Marsh et al. figure 4, figure 1, objects 36 and 28 and column 2, lines 24-28, "create an air barrier over the well" shows the filter emitting air inwardly) because this allows for the objects to be sterilized to be securely within the apparatus and the all over flow of sterilized air.

7. For claim 2, the Howorth reference discloses the need for all over flow of sterilized air from the work surface, and forming a continuously replenished rising layer of filtered air over the work surface within the sterile zone / volume (figure 2 objects 22 a and 22b). The reference does not disclose the sterile/filtered air is directed across the work surface from all directions inwardly of the boundary wall and forms a continuously replenished rising layer of filtered air over the work surface within the sterile zone / volume defined by the boundary wall.

8. The Marsh et al. reference discloses the sterile/filtered air is directed across the work surface from all directions inwardly of the boundary wall and forms a continuously replenished rising layer of filtered air over the work surface within the sterile zone / volume defined by the boundary wall (column 2, lines 24-27).

9. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include the sterile/filtered air being directed across the work surface from all directions inwardly of the boundary wall and forming a continuously replenished rising layer of filtered air over the work surface within the sterile zone / volume defined by the boundary wall (Marsh et al. column 2, lines 24-27) because this allows for the objects to be sterilized to be securely within the apparatus and the all over flow of sterilized air.

10. For claim 4, the Howorth reference discloses filtered air being emitted from the work tray on all sides (figure 2 objects 22 a and b). The reference does not disclose the all sides being in the shape of a tray that is rectangular, and with the boundary wall defining the four sides of the rectangle.

11. The Marsh et al. reference discloses the boundary wall defines all sides of the tray and the filtered air being emitted inwardly over the work surface from all sides (figure 4 object 36). The reference does not disclose the boundary wall in the shape of a rectangle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the boundary wall in the shape of a rectangle since the examiner takes Official Notice of the equivalence of the tray/boundary wall in the shape of a circle of Marsh (objects 36 and 28) and the applicants tray/boundary wall in the shape of a rectangle for their use in the air tray and outlet art and the selection of any of these known equivalents to provide an tray for surgical items and an outlet for filtered air would be within the level of ordinary skill in the art.

12. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include all sides being in the shape of a tray that is rectangular, the boundary wall defining the four sides of the rectangle, and the filtered air being emitted inwardly over the work surface from all sides (Marsh et al. figure 4 object 36) because this allows for the objects to be sterilized to be securely within the working tray.

13. For claim 5, the Howorth reference discloses the trolley casing is in a modular form having a base unit housing the impeller and an upper unit comprising the work surface (figures 1 objects 11 and 12, and figure 2 object 17). The reference does not disclose the work surface being tray-shaped with a boundary wall, and the upper unit being readily demountable from and re-mountable to the base unit.

14. The Marsh et al. reference discloses the work surface being tray-shaped with a boundary wall (figure 1 objects 36 and 28).

15. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include the work surface being tray-shaped with a boundary wall (Marsh et al. figure 1 objects 36 and 28) because this allows for the objects to be securely within the working tray.

16. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the upper unit being readily demountable from and re-mountable to the base unit, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

17. For claim 6, the Howorth reference does not disclose sterilized surgical instruments are set out on the work surface of the upper unit and sealed in by a film, foil or lid of barrier material that is mounted above the work surface.

18. The Marsh et al. reference discloses a tray that has the ability to have sterilized surgical instruments on the top of the surface, and to mount foil or a lid on the top of the tray (figure 1 objects 36 and 28). It would have been within the skill of one having ordinary skill in the art at the time the invention was made to have modified the Marsh et al. reference to include the ability to mount foil or a lip on the top of the tray in order to keep the trays contents free of dust.

19. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include sterilized surgical instruments set out on the work surface of the upper unit and sealed in by a film, foil or lid of barrier material that is mounted above the work surface (figure 2 objects 20 and 22) because this allows for the objects to be securely within the tray, and the contents of the tray to be free of dust.

20. For claims 7 and 8, the Howorth reference discloses the need for a working tray to put surgical instruments or other items place flat on the working surface (3-16). The reference discloses that the working tray could have any dimension (column 3, lines 20-24). The reference does not disclose the working surface being a rectangular tray with boundary walls higher than the instruments, the height of the boundary wall is slightly greater than the height of the any of the instruments or other items placed flat on the work surface of the tray in order to fully enshroud the same, and the height of the

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boundary wall is on the order of 200 to 300mm while maintaining the blanket of sterile air.

21. The Marsh et al. reference discloses a tray with boundary walls that would be higher than the surgical instruments (figure 1 objects 28 and 36 and column 3, lines 31-43). The reference does not disclose the height of the boundary wall is on the order of 200 to 300mm while maintaining the blanket of sterile air. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the height of the boundary wall is on the order of 200 to 300mm while maintaining the blanket of sterile air, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. The reference does not explicitly state the boundary wall being rectangular. The reference does not disclose the boundary wall in the shape of a rectangle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the boundary wall in the shape of a rectangle since the examiner takes Official Notice of the equivalence of the tray/boundary wall in the shape of a circle of Marsh (objects 36 and 28) and the applicants tray/boundary wall in the shape of a rectangle for their use in the air tray and outlet art and the selection of any of these known equivalents to provide an tray for surgical items and an outlet for filtered air would be within the level of ordinary skill in the art.

22. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth et al. reference to include the

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working surface being a rectangular tray with boundary walls higher than the instruments, the height of the boundary wall is slightly greater than the height of the any of the instruments or other items placed flat on the work surface of the tray in order to fully enshroud the same, and the height of the boundary wall is on the order of 200 to 300mm while maintaining the blanket of sterile air (figure 1 objects 28 and 36 and column 3, lines 31-43) because this allows for the objects to be securely within the tray and provided with a continuous flow of contaminant free airflow.

23. For claim 9, the Howorth reference does not disclose the rate of flow of air from the outlets is of the order of 0.4 to 0.5 meters per second, and no less than approximately 0.35 meters per second.

24. The Marsh et al. reference discloses the rate of flow of air from the outlets of the boundary wall (column 2, lines 30-32) is adjustable. The reference does not explicitly state is of the flow rate of air in the order of 0.4 to 0.5 meters per second, and no less than approximately 0.35 meters per second. It would be obvious to one having ordinary skill in the art at the time the invention was made that the speed at which the air exits is merely a design choice and is within the abilities of the Marsh et al. reference.

Furthermore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the flow rate of air in the order of 0.4 to 0.5 meters per second, and no less than approximately 0.35 meters per second, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

25. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include the rate of flow of air from the outlets is of the order of 0.4 to 0.5 meters per second, and no less than approximately 0.35 meters per second (Marsh et al. column 2, lines 30-32) because this provides laminar air flow.

26. For claim 10 the Howorth et al. reference discloses the work tray being densely perforated with many substantially uniform distributed apertures to provide a substantially uniform flow of air through the work tray (figure 2 objects 22 a, b and 15). The reference does not disclose the work tray comprising boundary walls which are densely perforated to provide substantially uniform air through the work tray.

27. The Marsh et al. reference discloses the work tray comprising boundary walls which are densely perforated to provide substantially uniform air through the work tray (figure 1 object 36 and column 2, lines 24-37).

28. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include the work tray comprising boundary walls which are densely perforated to provide substantially uniform air through the work tray (Marsh et al. figure 1 object 36 and column 2, lines 24-37) because this allows for the objects to be securely within the tray and a supply of substantially contaminant free air flowing over the tray.

29. For claim 11, the Howorth reference does not explicitly state the construction of the part of the boundary wall comprising the outlets is such as to provide a pressure drop of the order of at least 10 Pascal's. It would have been obvious to one having

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ordinary skill in the art at the time the invention was made to the construction of the part of the boundary wall comprising the outlets is such as to provide a pressure drop of the order of at least 10 Pascal's, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

30. For claim 14, the Howorth reference discloses a sterile air trolley comprising a mobile casing having at least one air inlet in its lower region (figure 1 objects 11, 13 and 14) and a plurality of air outlets in its upper region (figure 1, object 22a, and b) and enclosing an impeller operative to move air in through the at least one inlet (column 1, lines 33-34), through a filter and out of the casing by way of the outlets, the upper region of the casing providing a substantially horizontal work surface, the work surface consisting of air outlets, the filtered air entering the hollow work surface, and exiting the air outlets which are all over the working tray (figure 2 objects 22 a and b) and means for preventing the entrainments of contaminants in the tray to a region outside of the tray by providing a substantially uniform flow of filtered air over the work surface in a continuously replenished rising layer (figure 1, objects 15, and column 2, lines 46-49). The reference does not disclose an upstanding boundary wall extending around the perimeter of the work surface whereby the work surface and boundary wall form a tray, the boundary wall being hollow and extending fully around the perimeter of the work surface, whereby the filtered air is directed into the boundary wall and is emitted through air outlets in the boundary wall over the work surface from opposing sides, the air outlets facing only substantially inwardly towards the work surface from the boundary

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wall, the boundary wall comprising first and second pairs of opposing straight, parallel side walls.

31. The Marsh et al. reference discloses an upstanding boundary wall extending around the perimeter of the work surface whereby the work surface and boundary wall form a tray, the boundary wall extending fully around the perimeter of the work surface, the walls emitting filtered air on all sides, and the air outlets facing only substantially inwardly towards the work surface from the boundary wall (figure 1, objects 36 and 28 column 2, lines 24-27). The reference does not explicitly state the boundary wall being hollow. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the wall being hollow since the examiner takes Official Notice of the equivalence of the wall of Marsh (objects 36 and 28) and the applicants hollow wall for their use in the air outlet art and the selection of any of these known equivalents to provide an outlet for filtered air would be within the level of ordinary skill in the art. Merely changing the shape of the filter (from a circle, to the boundary wall comprising first and second pairs of opposing straight, parallel side walls) does not render patentability. The specification contains no disclosure of either the critical nature of this requirement or any unexpected results arising therefrom, and as such this requirement would be arbitrary and therefore obvious. Applicant must show that this requirement is critical. In re Woodruff, 16 USPQ 2d 1934.

32. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include an upstanding boundary wall extending around the perimeter of the work surface whereby the work

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surface and boundary wall form a tray, the boundary wall being hollow and extending fully around the perimeter of the work surface, whereby the filtered air is directed into the boundary wall and is emitted through air outlets in the boundary wall over the work surface from opposing sides, the air outlets facing only substantially inwardly towards the work surface from the boundary wall, the boundary wall comprising first and second pairs of opposing straight, parallel side walls (Marsh et al. figure 4, figure 1, objects 36 and 28, and column 2, lines 24-27) because this allows for the objects to be sterilized to be securely within the apparatus and the all over flow of sterilized air.

33. For claim 15, the Howorth reference discloses the need for all over flow of sterilized air from the work surface, and forming a continuously replenished rising layer of filtered air over the work surface within the sterile zone / volume (figure 2 objects 22 a and 22b). The reference does not disclose the sterile/filtered air is directed across the work surface from all directions inwardly of the boundary wall and forms a continuously replenished rising layer of filtered air over the work surface within the sterile zone / volume defined by the boundary wall.

34. The Marsh et al. reference discloses the sterile/filtered air is directed across the work surface from all directions inwardly of the boundary wall and forms a continuously replenished rising layer of filtered air over the work surface within the sterile zone / volume defined by the boundary wall (figure 1 objects 28 and 36, column 2, lines 24-37 and abstract).

35. It would be obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include the sterile/filtered air is

directed across the work surface from all directions inwardly of the boundary wall and forms a continuously replenished rising layer of filtered air over the work surface within the sterile zone / volume defined by the boundary wall (Marsh et al. figure 1 objects 28 and 36, column 2, lines 24-37 and abstract) because this allows for the objects to be sterilized to be securely within the apparatus and the sterilized air to be distributed over the entire surface of the apparatus.

36. For claim 16, the Howorth reference discloses filtered air being emitted from the work tray on all sides (figure 2 objects 22 a and b). The reference does not disclose the all sides being in the shape of a tray that is rectangular, and with the boundary wall defining the four sides of the rectangle.

37. The Marsh et al. reference discloses the boundary wall defines all sides of the tray and the filtered air being emitted inwardly over the work surface from all sides (figure 4 object 36). The reference does not disclose the boundary wall in the shape of a rectangle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the boundary wall in the shape of a rectangle since the examiner takes Official Notice of the equivalence of the tray/boundary wall in the shape of a circle of Marsh (objects 36 and 28) and the applicants tray/boundary wall in the shape of a rectangle for their use in the air tray and outlet art and the selection of any of these known equivalents to provide an tray for surgical items and an outlet for filtered air would be within the level of ordinary skill in the art.

38. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include all sides being in

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the shape of a tray that is rectangular, the boundary wall defining the four sides of the rectangle, and the filtered air being emitted inwardly over the work surface from all sides (Marsh et al. figure 4 object 36) because this allows for the objects to be sterilized to be securely within the working tray.

39. For claim 17, the Howorth reference discloses the trolley casing is in a modular form having a base unit housing the impeller and an upper unit comprising the work surface (figures 1 objects 11 and 12, and figure 2 object 17). The reference does not disclose the work surface being tray-shaped with a boundary wall, and the upper unit being readily demountable from and re-mountable to the base unit.

40. The Marsh et al. reference discloses the work surface being tray-shaped with a boundary wall (figure 1 objects 28 and 36).

41. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include the work surface being tray-shaped with a boundary wall (Marsh et al. figure 1 objects 28 and 36) because this allows for the objects to be securely within the working tray.

42. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the upper unit being readily demountable from and re-mountable to the base unit, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlicnrrnan*, 168 USPQ 177, 179.

43. For claim 18, the Howorth reference does not disclose sterilized surgical instruments are set out on the work surface of the upper unit and sealed in by a film, foil or lid of barrier material that is mounted above the work surface.

44. The Marsh et al. reference discloses a tray that has the ability to have sterilized surgical instruments on the top of the surface, and to mount foil or a lid on the top of the tray (figure 1 objects 36 and 28). It would have been within the skill of one having ordinary skill in the art at the time the invention was made to have modified the Marsh et al. reference to include the ability to mount foil or a lip on the top of the tray in order to keep the trays contents free of dust.

45. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include sterilized surgical instruments set out on the work surface of the upper unit and sealed in by a film, foil or lid of barrier material that is mounted above the work surface (figure 2 objects 20 and 22) because this allows for the objects to be securely within the tray, and the contents of the tray to be free of dust.

46. For claim 19, the Howorth reference discloses the need for a working tray to put surgical instruments or other items place flat on the working surface (3-16). The reference discloses that the working tray could have any dimension (column 3, lines 20-24). The reference does not disclose the working surface being a rectangular tray with boundary walls higher than the instruments, the height of the boundary wall is slightly greater than the height of the any of the instruments or other items placed flat on the work surface of the tray in order to fully enshroud the same.

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47. The Marsh et al. reference discloses a tray with boundary walls that would be higher than the surgical instruments (figure 1 objects 28 and 36 and column 3, lines 31-43). The reference does not explicitly state the boundary wall being rectangular. The reference does not disclose the boundary wall in the shape of a rectangle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the boundary wall in the shape of a rectangle since the examiner takes Official Notice of the equivalence of the tray/boundary wall in the shape of a circle of Marsh (objects 36 and 28) and the applicants tray/boundary wall in the shape of a rectangle for their use in the air tray and outlet art and the selection of any of these known equivalents to provide an tray for surgical items and an outlet for filtered air would be within the level of ordinary skill in the art.

48. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth et al. reference to include the working surface being a rectangular tray with boundary walls higher than the instruments, and the height of the boundary wall is slightly greater than the height of the any of the instruments or other items placed flat on the work surface of the tray in order to fully enshroud the same (Marsh et al. figure 1 objects 28 and 36 and column 3, lines 31-43) because this allows for the objects to be securely within the tray and provided with a continuous flow of contaminant free airflow.

49. For claims 20 and 21, the Howorth et al. reference does not disclose air outlets not being directed upwardly or outwardly.

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50. The Marsh et al. reference discloses no air outlets being directed upwardly or outwardly (figure 4 object 36 and column 2, lines 24-37).

51. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth et al. reference to include no air outlets being directed upwardly or outwardly (Marsh et al. figure 4 object 36 and column 2, lines 24-37) because this provides a continuous flow of contaminant free air over the enclosed area.

52. For claims 22, the Howorth et al. reference does not disclose the upstanding boundary wall does not have an inwardly projecting lip.

53. The Marsh et al. reference discloses the upstanding boundary wall does have an inwardly projecting lip in order to give direction to the air flow (column 2, lines 38-42).

54. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include to have the upstanding boundary wall not having an inwardly projecting lip (Marsh et al. column 2, lines 38-42) in order to allow for the expansion of the air.

55. For claim 24, the Howorth et al. reference discloses a sterile air trolley comprising a mobile casing having at least one air inlet in its lower region (figure 1 objects 11, 13 and 14) and a plurality of air outlets in its upper region (figure 1, object 22a, and b) and enclosing an impeller operative to move air in through the at least one inlet (column 1, lines 33-34), through a filter and out of the casing by way of the outlets, the upper region of the casing providing a substantially horizontal work surface (figure 1, objects 15, and column 2, lines 46-49). The reference does not disclose an upstanding

boundary wall extending around a perimeter of the work surface whereby the work surface and the boundary wall form a tray, the boundary wall being hollow; And a plurality of opposing side walls forming an interior side of the boundary wall, the opposing side walls being densely perforated with many substantially uniformly distributed apertures that direct a substantially uniform flow of air through the boundary wall and over the work surface.

56. The Marsh et al. reference discloses an upstanding boundary wall extending around a perimeter of the work surface whereby the work surface and the boundary wall form a tray, and a plurality of opposing side walls forming an interior side of the boundary wall, the opposing side walls being densely perforated with many substantially uniformly distributed apertures that direct a substantially uniform flow of air through the boundary wall and over the work surface (figure 1, objects 36 and 28 and column 2, lines 24-28, "create an air barrier over the well" shows the filter emitting air inwardly). The reference does not explicitly state the boundary wall being hollow. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the wall being hollow since the examiner takes Official Notice of the equivalence of the wall of Marsh (objects 36 and 28) and the applicants hollow wall for their use in the air outlet art and the selection of any of these known equivalents to provide an outlet for filtered air would be within the level of ordinary skill in the art.

57. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Howorth reference to include an upstanding boundary wall extending around a perimeter of the work surface whereby the work

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surface and the boundary wall form a tray, the boundary wall being hollow; And a plurality of opposing side walls forming an interior side of the boundary wall, the opposing side walls being densely perforated with many substantially uniformly distributed apertures that direct a substantially uniform flow of air through the boundary wall and over the work surface (Marsh et al. figure 4, figure 1, objects 36 and 28 and column 2, lines 24-38, "create an air barrier over the well" shows the filter emitting air inwardly) because this allows for the objects to be sterilized to be securely within the apparatus and the all over flow of sterilized air.

Response to Arguments

58. Applicant's arguments, see page 7, filed 09/13/2010, with respect to claim 22 have been fully considered and are persuasive. The 35 U.S.C. 112 rejection of 22 has been withdrawn.

59. Applicant's arguments filed 09/13/2010 have been fully considered but they are not persuasive.

60. For claim 1, the applicant argues that claim 1 discloses the means plus function format, which clearly shows to one having ordinary skill in the art that claim 1 is a laminar flow work bench. The applicant describes that the claim language "a substantially uniform and continuously replenished rising layer of filtered air over the work surface", stating that "the "means" of claim 1 and the specification provides the function of providing a uniform layer of air flowing parallel to the work surface. According to Random House Dictionary via dictionary.com "laminar" is defined as "composed of,

or arranged in, a thin plate, sheet, or layer." The applicant contends that the Marsh reference does not describe laminar air flow.

61. The examiner disagrees. The applicant is trying to interpret the claim language to somehow show that the specification gives support for laminar **flow** of air. This is not the case. The definition of laminar flow according to Random House Dictionary via dictionary.com is "the flow of a viscous fluid in which particles of the fluid move in parallel **layers**, each of which has a constant velocity but is in motion relative to its neighboring layers" and "Smooth, orderly movement of fluid in which there is no turbulence, and any given subcurrent moves more or less in parallel with any other nearby subcurrent.". Such a definition of laminar flow is not disclosed anywhere within the specification. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., laminar flow) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

62. The applicant argues that the Marsh reference does not disclose a uniform layer of filtered air and that the Marsh reference discloses turbulent flow.

63. The applicant disagrees. The Marsh reference discloses "The diffuser is fabricated of a material capable of **uniformly** directing the conditioned airflow from the plenum into its central well, at a velocity sufficient to create an air barrier over the well" column 2, lines 24-28) and "The diffuser expands under the influence of the air flow

directed therethrough and discharges a uniform mass" (column 2, lines 63-65). The examiner does not interpret the "mass of air" to mean turbulent flow nor is there any definition within the Marsh reference to lead one to believe that a mass of air is intended to be turbulent flow. Lastly the applicant is not defining claim 1 to not include turbulent air flow therefore rendering the applicants arguments moot.

64. The applicant argues that there is not motivation to combine the teachings of Howorth and Marsh. The applicant states neither the Howorth nor Marsh reference discloses the entrainment problem that is identified by the present invention and the way to solve such an entrainment problem.

65. In response to applicant's argument that neither the Howorth or Marsh references disclose the entrainment problem that is identified by the present invention and the way to solve such an entrainment problem, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

66. For claim 14, the examiner would like to note that the applicant has failed to meet the requirements to invoke 35 U.S.C. §112, 6th paragraph. See the MPEP 2181 "Identifying a 35 U.S.C. §112, 6th paragraph Limitation".

"A claim limitation will be presumed to invoke 35 U.S.C. 112, sixth paragraph, if it meets

the following 3-prong analysis:

(A) the claim limitations must use the phrase "means for " or "step for; "

(B) the “means for ” or “step for ” must be modified by functional language;
and

(C) the phrase “means for ” or “step for ” must not be modified by sufficient structure, material, or acts for achieving the specified function.”

Claims 14 includes the “means for” phrase being modified by sufficient structure for achieving the specified function (e.g. "by providing a substantially uniform flow of filtered air over the work surface in a continuously replenished rising layer.")

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMBER ORLANDO whose telephone number is (571)270-3149. The examiner can normally be reached on Mon.-Thurs. (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on (571) 272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AO

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1774